PRACTICE ABSTRACT: 10

Sustainable PARasite Control in Grazing Ruminants

Targeted treatment in first season grazing cattle based on pasture risk profiling: deworm your herd only when needed.

Objectives:

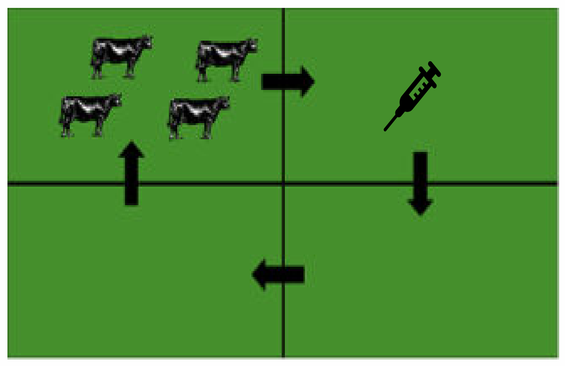
- Implement **targeted anthelmintic treatment** in first grazing season cattle
  - Avoid excessive usage of anthelmintics (wormers)
  - Obtain effective worm control
  - Maintain productivity (growth)

How? Treatment decision based on a non-invasive decision support tool **(Wormtool)**

- **Risk assessment** of the pasture infection level based on a short questionnaire before turnout:
  - Grazing management in previous year?
  - Anthelmintic treatments in previous year?
- **Treatment advice** based on risk profile:
  - Low risk: no treatment or treatment with anthelmintic without persistent efficacy
  - Medium risk: treatment(s) with anthelmintic with persistent efficacy
  - High risk: intensive treatment, e.g. with long-acting anthelmintic
  - More specific treatment options within each risk category to be discussed with veterinarian
- (Optional: check serum pepsinogen levels at housing to **validate** the applied worm control measures)
  - Biomarker for worm infection level (*Ostertagia)*
- **Assumption**: grazing management remains unchanged in successive years
  - If the grazing management is different from last year, adapt treatment advice to new situation

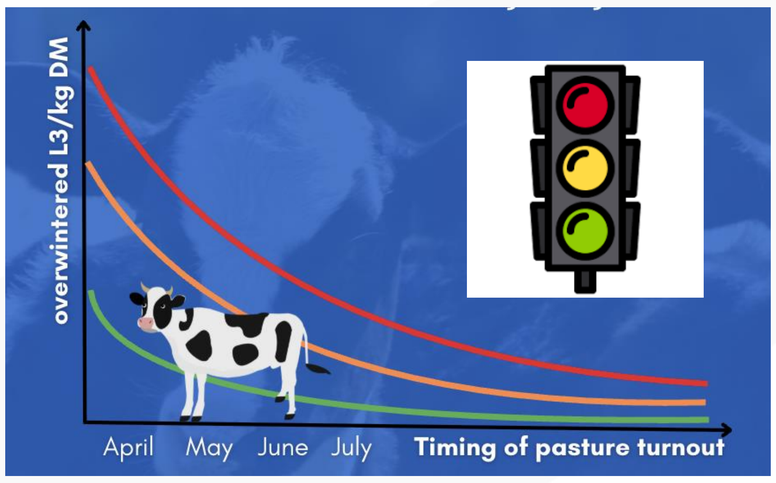
Benefits

- 'Blind' treatments replaced by informed treatment decisions, reduced and/or more effective use of wormers
- No sampling for diagnostics required
- Potential delay of anthelmintic resistance
- Reduced environmental contamination with drug residues



Year x-1 **information**

- Grazing management
- Anthelmintic treatments



Risk assessment of pasture infection level at turnout

Year x: **treatment advice**

Wormtool combines treatment history with grazing management information to provide farm tailored risk assessment and worm control advice for first grazing season cattle.

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